

Application: 10/604,360 (Spero) Art Unit 2875 Amendment C & Remarks page 2

Regarding the pertinence of claim 67 to the elected species paragraph [00115] of the specification clearly elucidates how the inverse square law, "Lambert's Law", of claim 67 is used to determine the placement at angle β horizontally and vertically angled α to illuminate specific areas. *"In order to assure an even distribution of light from a point source over an area, it is necessary to take the effects of the angle and distance to the illuminated surfaces into account as stated in the inverse square law. In a preferred embodiment SLS over a range 30 aimed at higher angles to increase light flux at those angles in order to maintain an even light distribution which would fill in the corners of a square room with equivalent illumination. An additional amount of SLS are added on the DLF body 24 at 90 degree angles on β , 27 where SLS aimings will push added light into areas corresponding to the "corners".* 5 10

Thus the applicant submits that claims 57, 58 and 67 are directed to the elected species and should not be withdrawn from consideration as they are an integral part of the novel illumination device and are clearly described in the opening paragraphs describing the elected species. 15

Claim Objections:

In reply to point 2 Claims 54, 55, 62, 63 and 69 are objected to because of the following informalities...lack of antecedent basis...

The applicant amends claims 54 and 55 to use the exact phrase "predetermined surface areas" of claim 50 in place of the present "predetermined surfaces" of the same meaning. 20

Claim 54 has been amended as follows:

54 (currently amended) The illuminating device of claim 50 wherein the predetermined surfaces areas are equidistant from the light source and the design illuminance on the respective predetermined surfaces areas are not equal. 25

Claim 55 has been amended as follows:

55 (currently amended) The illuminating device of claim 50 wherein the predetermined surfaces areas are non-equidistant and the design illuminance on the respective predetermined surfaces areas are equal. 30

Application: 10/604,360 (Spero) Art Unit 2875 Amendment € & Remarks page 3

Regarding claim 62, *"all elements of a claim Markush Group type should be equivalent"*.

The applicant submits that the "power supply", "controller, "storage media' are equivalent in type in relation to the lighting fixture. They are called accessories in the lighting industry as they are not inherently necessary for the fixture's operation but are optionally added to increase one function or another thereon. They may be an integral part or physically joined in the same body as the lighting fixture as in the present invention or be auxiliary devices mounted separately. 5

Regarding claim 63 *"lack of antecedent basis... said controller"* The controller had been previously mentioned above in claim 62d but nevertheless as requested the claim is now amended: 10

Claim 63 has been amended as follows:

63 (currently amended) The illuminating device of claim 60, ~~wherein said~~ having a controller for adjusting a power signal to the light sources is selected from the list consisting of: 15

- (a) an open-loop controller, factory programmed, for use in general lighting according to correct lighting practice;
- (b) an open-loop controller, user-programmed, by use of a programming method taking into account the lighting requirements of the environment in which the luminaire is to be used; 20
- (c) a closed loop controller, user-programmed, by use of a programming method taking into account the lighting requirements of the environment in which the luminaire is to be used;
- (d) a closed loop controller user-programmed, by use of a programming method taking into account the lighting requirements of the environment and self-adjusting in response to the changing lighting requirements of the environment in which the luminaire is located; 25
- (e) a closed loop controller, self-adjusting in response to the lighting requirements of the environment in which the luminaire is located, without pre-programming. 30

RECEIVED
CENTRAL FAX CENTER

NOV 14 2008

Application: 10/604,360 (Spero) Art Unit 2875 Amendment & Remarks page 4

Claim 69 has been amended as follows:

A period had been added to the end.

Claim Rejections: - 35 §USC 112

In reply to point 4 Claims 50- 56, 59- 66 and 68- 69 are rejected to...

5

The pro-se applicant has written the claims to clearly describe the apparatus and method regarding the design and assembly of multiple light source illuminating structure. If the pro-se applicant has an error in a claim then he requests under M.P.E.P. § 2173.02 and §707.07(j) that the examiner should draft one or more claims for the applicant in the correct manner.

10

Claim Rejections: - 35 §USC 102

In reply to point 5 and 6: Claims 50-56 ...

The examiner sites prior art "Zhang et al. US 6,227,679B1 discloses an illuminating device...". The applicant submits that Zhang [col 2, lines 25-30] clearly states the he discloses a device "*comprised of a plurality of LEDs that permit a 360° field of view, having about the same light intensity for various viewing angles.*" The applicant submits that this "*same light intensity for various viewing angles*" is the exact opposite of the "non-symmetrical light intensities" of the illumination device of fig. 2A. The present disclosure in Paragraph [00112] describing figure 2A clearly describes the different goal, construction and functionality: "*In a position oriented lamp arrangement..., the light distribution can be nonsymmetrical and tailored to the needs of the room*". The Zhang device actually further points out the novelty of the present inventive device. Here the novel combination of the provision for the unique orientation of the device to the room geometry and the unique non-symmetrical light output, resulting from the LEDs placements in accordance with Lambert's Law in anticipation of a specific room geometry creates for the first time a multiple light source lighting fixture with the capability of producing an equivalent illuminance on the surfaces over a 360° field of view (from the lighting device) without recourse to additional reflectors or refractors.

15

20

25

30

Application: 10/604,360 (Spero) Art Unit 2875 Amendment € & Remarks page 5

As Zhang's device has no apparatus for being specifically orientated to the room or surfaces which it is designed to illuminate his device will yield non-uniform illuminance on those surfaces. It is important to understand the difference between equal intensity and equal illuminance. Equivalent intensity of a point light source will not produce equivalent surface illuminance in a room unless said room is in the shape of a sphere, which is quite unusual. In a typical square or rectangular room a non-equivalent light intensity is required. The Zhang device is incapable of providing equivalent lux on the room surfaces while the device of the present disclosure is capable. Thus the applicant submits that the Zhang invention disclosure does not read on the present invention.

5
10

Claim Rejections: - 35 §USC 112

In reply to point 7: Claims 61 is rejected over Zhang in view of Chen US6,820,998...

The examiner has rejected Claim 61 wherein the intensity, spectrum, and spatial distribution of intensity and spectrum is adjusted for changes in a living space based on Chen who provides an LED lamp capable of detecting human body presence and ambient lighting. Many incandescent and fluorescent lighting systems exist for decades with such control. The uniqueness afforded by presently claimed control is novel in respect to the capabilities of lighting fixture to illuminate different areas in its purview differently. Since Chen's lighting device has no provision to alter anything other than the lighting intensity, it not obvious to provide the unique sensing of changes described in the present patent.

15
20

Paragraph [0064] states ... *This flexibility is useful as for example in a multi-source luminaire with spatially differentiated dimming capability used in an office lighting application. In a normal day's operation, such as in a windowed room between peak daylight and nighttime hours, the intensity and color temperature of the light varies greatly over different portions of the room. The smooth variation possible with many light sources ("digits") vs. one light source offers superior flexibility in providing the actual lighting needs.* Thus the present device is equipped with sensing capacity to deduce the ambient lighting on one side of a room versus the other and the color temperature of the illumination and having control to effect the light output to one side of a room versus the

25
30

Application: 10/604,360 (Spero) Art Unit 2875 Amendment C & Remarks page 6

other is novel and unobvious since the capability of a lighting device to accomplish this was unknown to Chen or anyone else proficient in the art.

In reply to point 8: Claims 63 is rejected over Zhang in view of Lys US 6,340,868

In light of the novel capabilities of the presently disclosed lighting fixture to carry out spatially differentiated illumination both in intensity and spectrum as illustrated by the example in the paragraph above requires that the power supply be unique and is clearly described in the specification as in par. [0035] and [0101]. The power supply having current and voltage conditioning electronics affecting its magnitude, signal shape and timing and in its novel integration in an illuminating device comprised of electronic light sources made of diode junctions. 5 10

While Lys is controlling spectrum and intensity of the light sources these are not being controlled in relation to specific locations on the lighting fixture corresponding to illuminating differently specific surface areas in a room. A lighting device for illuminating performances provides a non-differentiated beam of light and has it own unique control requirements. The power supply in the present invention is novel in that it is capable of being controlled by sensors detecting environmental conditions and powering light sources in a non-uniform manner over the lighting fixture. Having relation to room geometry and illuminating surface areas differently it has many novel features over the computer controlled power supply Lys is using as described in the specification for example in par. [0103] within a calibration of the power supply to a spatially differentiated illumination spectrum. Thus it has been shown that Claim 63 clearly describes a unique design and method relevant only to multiple light source illumination devices having angularly differentiated light source mounted thereon as disclosed in this invention and not predicted by Zhang. And thus the invention is not obvious to a person of ordinary skill in view of Lys. 15 20 25

Conclusion

The applicant submits that the claims are now in proper form and that the claims all define patentability over the prior-art. The claims define a novel structure and method

RECEIVED
CENTRAL FAX CENTER

NOV 14 2008

Application: 10/604,360 (Spero) Art Unit 2875 Amendment E & Remarks page 7

which is also not obvious. Therefore the applicant submits that this application is now in condition for allowance, which action he respectfully solicits.

Conditional Request for Constructive Assistance

Should the examiner still prefer to have these or any or any other claims amended to more clearly highlight the uniqueness of the present invention, the pro se applicant requests under M.P.E.P. § 2173.02 and §707.07(j) that the examiner should draft one or more claims for the applicant and indicate in his or her action that such claims would be allowed if incorporated in the application by amendment. This request is in order that the undersigned can place this application in allowable condition as soon as possible and without the need for further proceedings.

Very respectfully,

Evan Spero

Yechezkal Evan Spero

74 Moshav Tifrach

M. P. Hanegev 85102

Israel

Tel: +972-54-440-7280

Fax: +972-8-996-0324

yspero@netvision.net.il